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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,954	12/01/2003	Ryosuke Usui	14225-035001/F1030610US00	3594

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EXAMINER

BREWSTER, WILLIAM M

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/724,954

Applicant(s)

USUI ET AL.

Examiner

William M. Brewster

Art Unit

2823

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 26 August 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-14.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____.

William M. Brewster

7 SEP 05

Proposed amendment received 26 August 2005, purports to place the application in condition for allowance by amending the independent claims by including the limitations from dependent claim 13 into claims 1 and 2.

As the claims currently stand, independent claims 1 and 2 are rejected by a §102(b) over Huang. Claim 13 was rejected over §103(a) over Huang in view of the Applicant's Admitted Prior Art. The amended independent claims would have the same §103(a) rejection, and would therefore not be considered allowable. Applicant argues that the §103(a) is improper due to 'hindsight reasoning' and because the AAPA address a 'completely different problems from those of the Huang et al. patent'.

Examiner respectfully disagrees with the alleged improperness of the §103(a). While neither of the references teaches all the limitations of the §103(a) rejection, one would not expect them to in a §103(a) combination. It is the combination that must be viewed *in toto* (see below). Even if the original inventors did not envision all the uses of their inventions does not preclude the examiner from finding proper motivation to combine the two. In this case, the motivation for combination is taught by the Background, p. 4, lines 4-6, "a circuit device, which does not require a supporting substrate, was manufactured by processes such as the above," which, examiner believes, to be a 'clear and particular' reason.

As a rule, obviousness is based upon what the "references taken collectively would suggest to those of ordinary skill in the art." *In re Rosselet*, 146 USPQ 183, 186 (CCPA 1965). Furthermore, one cannot show non-obviousness by merely attacking references individually where the rejections are based on combinations of references.

In re Keller, 208 USPQ 871 (CCPA 1981); *In re Merck & Co., Inc.*, 231 USPQ 375 (Fed. Cir. 1986). Instead, there must be an absence of “some teaching, suggestion or incentive supporting the prior art combination that produces the claimed invention.” *In re Bond*, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990). “Just as piecemeal reconstruction of the prior art by selecting teachings in light of [the] disclosure is contrary to the requirements of 35 USC § 103, so is the failure to consider as a whole the references collectively as well as individually.” *In re Passal*, 165 USPQ 720, 723 (CCPA 1970).

Applicant argues the rejection incorporates the Freyman reference in full into Huang reference and that this is improper. The rejection does not rely on the entire Freyman reference. Starting with what is stipulated, Huang’s fig. 7 is directly copied from fig. 6C of Freyman. Unfortunately, fig. 6C does not fully label all the features incorporated into said drawing. One reason is that the features are labeled in figs. 6A and 6B with their corresponding explanations in the specification. Examiner further points out in Freyman col. 8, lines 42-53, “fig. 6B is a plan view of the strip of 6A . . . fig. 6C is a plan view of one of the substrate 601-607 of fig. 6B.” As such the other figures of Freyman cited merely explain the features of fig. 6C, directly copied into Huang.

Applicant alleges the Huang/Freyman figure does not disclose “forming separation grooves in a conductive foil” as Huang/Freyman teach a coating of copper, not a conductive foil, and the ‘separation grooves’ can not be taught because the ‘slots’ of the prior art was formed before the copper was formed. Examiner respectfully disagrees. Copper is conductive, and in the prior art, it is obviously formed in a thin

planar manner, which could be considered a foil. Further, whatever differences the references may have to the applicant's specification; examiner has a fiduciary and unwaivable duty to the US citizens to interpret the claims as broadly as possible (see below). As such, a 'comprising' claim without any seen temporal limitations may form the 'separation grooves' however and whenever as is reasonably possible. Therefore whether the 'separation grooves' were formed in the conductive foil before or after depositing conductive foil is moot.

Examiner must give claims their broadest reasonable interpretation, MPEP §2111, "During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified, *In re Pratter*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969), *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997)." Also see *In re Zletz*, 13 USPQ 2d. 1320 (Fed. Cir. 1989).

Applicant argues that Huang does not teach 'the invention' as the features cited are from different embodiments. With respect, examiner does not find applicant's arguments backed up by case law, merely alleging interpretation of the statute. Interpreting statute is judicial function, not left to examiners. Huang is (one) printed publication describing an invention. Applicant's limitations are described by the features are disclosed within Huang, and embodiments are acceptable subdivisions to be taught

under the umbrella of an invention. As such the Huang invention is used properly under §102(b).

In regards to fig. 3, applicant argues that Huang does not disclose the plasma irradiation after the mounting of the circuit element, only before. Examiner responds that it is within the scope of the invention for a practitioner, using Huang's invention, to include plasma irradiation before attaching a chip. Examiner cannot find where Huang specifically forbids the plasma irradiation before an attachment. Huang teaches in fig. 6, step 603, "Clean out impurities on the surface of the chip and the substrate. While this is listed after step 602 of attachment of the chips to the substrate, Huang apparently did not see the need to concretely include temporal limitations for either the heuristic figure or the specification. Quite the opposite, in col. 6, lines 54-60, Huang does specify, "any variation or modification made without departing from the spirit and scope disclosed in the specification of the present invention will be encompassed in the claims disclosed below." As such, a thorough practitioner may choose to perform a plasma irradiation before attaching the chips to eliminate more of the impurities, which may be trapped between the chip and the substrate resulting in a more reliable device.

For the above reasons, the rejection is deemed proper, and the proposed amendments do not place the application in condition for allowance.